

Amendments to the Claims

1. (currently amended) A network device, comprising:
a control plane protocol module;
a control point, wherein the control point is one of a control plane to implement a core functionality of the control plane protocol module, or a forwarding plane to implement a portion of the control plane protocol module that is separated from the core functionality;
an infrastructure module resident on the control point constructed and arranged to allow the control point to connect and exchange information with other control points; and
a communication library resident on the control ~~points~~ point constructed and arranged to provide information to the control point about control plane protocol modules on the current control point.
2. (canceled)
3. (currently amended) The network device of claim 2 1, wherein the portion of the control plane protocol module that is separated from the core functionality further comprises a worker control plane protocol module.
4. (currently amended) The network device of claim 2 1, wherein the core functionality of the control plane protocol module further comprises a controller control plane protocol module.
- 5.-6. (canceled)
7. (original) The network device of claim 1, the infrastructure further comprising at least one standardized application programming interface.

8. (currently amended) The network device of claim 7, the application programming interface further comprising an application programming interface in accordance with the Network Processing Forum.

9. (original) The network device of claim 1, the infrastructure module further comprising a namespace to allow registration of components of the infrastructure module.

10. (original) The network device of claim 1, the infrastructure module further comprising a control plane protocol module registration module and a packet redirection module.

11. (original) The network device of claim 1, the infrastructure module further comprising a binding and discovery module and a transport module to allow the infrastructure module to communicate with other infrastructure modules on other network devices.

12. (original) The network device of claim 1, the communication library further comprising a peer control plane protocol module application programming interface.

13. (original) The network device of claim 1, the communication library further comprises a messaging layer.

14. (original) The network device of claim 1, the communication library further comprising a transport abstraction layer to handle interconnection and transport protocols.

15. (currently amended) A system, comprising:

 a control plane having a control plane processor to implement a core functionality of a control plane protocol module;

 at least one forwarding plane having a forwarding plane processor to implement a portion of the control plane protocol module that is separated from the core functionality;

 a backplane to provide connectivity between the control plane and the forwarding plane;
and

an infrastructure module resident on the control plane and the forwarding plane constructed and arranged to manage the connectivity between the control plane and the forwarding plane.

16. (original) The system of claim 15, the system further comprising a communication library resident on the control plane and the forwarding plane to communicate with the infrastructure module to obtain information about control plane protocol modules and to setup connections with the control plane protocol modules.

17. (currently amended) The system of claim 15, the core functionality of the control plane protocol module further comprising a controller control plane protocol module.

18. (currently amended) The system of claim 15, the portion of the control plane protocol module that is separated from the core functionality ~~forwarding plane~~ further comprises a worker control plane protocol module.

19. (currently amended) A method of distributing processing in a network device, comprising:

defining controller and worker control plane protocol modules, wherein the controller control plane protocol module implements a core functionality of a control plane protocol module on a control plane, and wherein the worker control plane protocol module implements a portion of the control plane protocol module that is separated from the core functionality on at least one forwarding plane;

developing corresponding entries in a communications library;

implementing an infrastructure module, the communication library and the controller module on a control plane; and

implementing the infrastructure module, the communication library and the worker modules on a forwarding plane.

20. (original) The method of claim 19, defining a controller and worker control plane protocol modules further comprising providing interfaces between the controller and worker modules.

21. (original) The method of claim 19, developing corresponding entries in a communications library further comprising developing instructions that, when executed, cause the controller and worker control plane protocol modules to communicate.

22. (currently amended) An article of machine computer-readable media containing instructions that, when executed, cause the machine computer to:

define defining controller and worker control plane protocol modules, wherein the controller control plane protocol module implements a core functionality of a control plane protocol module on a control plane, and wherein the worker control plane protocol module implements a portion of the control plane protocol module that is separated from the core functionality on at least one forwarding plane;

develop corresponding entries in a communications library;

implement an infrastructure module, the communication library and the controller module on a control plane; and

implement the infrastructure module, the communication library and the worker modules on a forwarding plane.

23. (original) The article of claim 22, the instructions that cause the machine to define a controller and worker control plane protocol modules further cause the machine to provide interfaces between the controller and worker modules.

24. (original) The article of claim 22, the instructions that cause the machine to develop corresponding entries in a communications library further cause the machine to develop instructions that, when executed, cause the controller and worker control plane protocol modules to communicate.